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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
08/379,566	08/09/95	HOLLITT M	94150

EXAMINER

11M1/0331

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ART UNIT	PAPER NUMBER
1103	11

DATE MAILED: 03/31/97

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☑ Responsive to communication(s) filed on 12-24-96

☑ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☑ Claim(s) 3-24 is/are pending in the application.
Of the above, claim(s) _____ is/are withdrawn from consideration.
☐ Claim(s) _____ is/are allowed.
☑ Claim(s) 3-24 is/are rejected.
☐ Claim(s) _____ is/are objected to.
☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
☐ The specification is objected to by the Examiner.
☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☑ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☑ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.
☐ received in Application No. (Series Code/Serial Number) _____.
☑ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☑ Notice of Reference Cited, PTO-892
☑ Information Disclosure Statement(s), PTO-1449, Paper No(s). 10
☐ Interview Summary, PTO-413
☐ Notice of Draftperson's Patent Drawing Review, PTO-948
☐ Notice of Informal Patent Application, PTO-152

–SEE OFFICE ACTION ON THE FOLLOWING PAGES–

★ U.S. GPO: 1996-404-496/40517

Claims 3-24 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 17, "or a sequential combination of an acid and an alkaline leachant" appears to be new matter.

Claims 20, 22 appear to be new matter.

Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 depends on cancelled claim 1 which is improper.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

Claims 3-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Heikel '916 or France 1,066,777 or Leary '438 or Pollard '934 or Stewart '099 or Stewart '929 each optionally in view of Chao '837.

Each of Heikel '916 or France 1,066,777 or Leary '438 or Pollard '934 or Stewart '099 or Stewart '929 teaches the claimed process steps of heating a titaniferous material to a temperature of less than 1300°C, cooling the heated product to form a solidified product and then leaching the solidified product (see the claims of Heikel; the claims of France '777; col. 1 and the claims of Leary; col. 1, example 1 and the claims of Pollard; col. 3 and example 1 of Stewart '099; and col. 2, the examples and claims of Stewart '929). The heating would appear to provide the instantly claimed solid titaniferous phase and the liquid oxide phase since the reactants and temperatures are the same as those instantly claimed. Each of the references also teaches the instantly claimed upgraded titaniferous material.

Any difference imparted by the product by process limitations would have been obvious to one having ordinary skill

in the art at the time the invention was made because where the examiner has found a substantially similar product as in the applied prior art the burden of proof is shifted to the applicant to establish that their product is patentably distinct not the examiner to show the same process of making, In re Brown, 173 USPQ 685, In re Fessmann, 180 USPQ 324, In re Spada, 15 USPQ2d 1655, In re Fitzgerald, 205 USPQ 594, and MPEP 2113.

Each of Heikel '916 or France 1,066,777 or Leary '438 or Pollard '934 or Stewart '099 or Stewart '929 may differ in that they do not specify a sequential combination of an acid and an alkaline leachant.

Chao teaches a sequential combination of an acid and an alkaline leachant for purifying titaniferous material or ore (see claims 1-26 and col. 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a sequential combination of an acid and an alkaline leachant in any of the processes of the primary references because this further purifies the titaniferous material and because Chao is drawn to a similar process in the same art.

The dependent claims are drawn to process particulars which if not expressly taught by the prior art above are well known in the art and would have been obvious thereover.

Applicant's arguments filed December 24, 1996 have been fully considered but they are not persuasive.

Applicant argues that Heikel does not disclose or suggest the formation of a liquid oxide phase separate from a solid titaniferous phase, wherein the liquid oxide phase contains impurities upon cooling.

However the taught heating step would appear to provide the instantly claimed solid titaniferous phase and the liquid oxide phase because the reactants and temperatures are the same as those instantly claimed.

Applicant argues that FR '777 does not disclose the step of heating titaniferous material with an additive to form a liquid oxide phase containing impurities.

However FR '777 does teach heating titaniferous material with the claimed additives at a temperature of 1300C which is not patentably distinct from the instantly claimed less than 1300C so that it would appear that the instantly claimed solid titaniferous phase and the liquid oxide phase would thus be formed because the taught process is the same as that instantly claimed.

Applicant argues that Leary does not disclose the step of heating titaniferous material with an additive to form a solid titaniferous phase and a liquid oxide phase containing impurities.

However Leary teaches the instantly claimed process therefore the formation of a solid titaniferous phase and a liquid oxide phase would follow.

Applicant argues that Stewart '099 teaches mixing the ore with the flux and reducing the mixture without sintering or melting which clearly teaches against the formation of a liquid phase.

However Stewart '099 teaches the same process as is instantly claimed using the same flux at the same temperature therefore it would appear that the instantly claimed liquid phase would be formed.

Similar arguments are made for Stewart '929 and the response for Stewart '099 by the examiner is hereby incorporated by reference.

Applicant argues that the result of the Pollard process is different from that instantly claimed.

However Pollard teaches the instantly claimed process therefore the same result as that instantly claimed should be obtained.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this

action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Bos whose telephone number is (703) 308-2537.

Steven Bos
Primary Examiner
Group 1100

sjb
March 27, 1997